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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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AGILENT TECHNOLOGIES
LEGAL DEPARTMENT 51UPD
INTELLECTUAL PROPERTY ADMINISTRATION
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EXAMINER

BAYARD, E

ART UNIT

PAPER NUMBER

2631

DATE MAILED:

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10/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/558,302

Applicant(s)
Hillary et al

Examiner
Bayard, Emmanuel

Art Unit
2631



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Aug 13, 2001

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 17-21 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 17-21 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other:

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DETAILED ACTION

1. This is in response to amendment filed on 8/13/01 in which claims 17-21 are pending. The applicant's amendment has been fully considered but are moot based on the new ground of rejection. Therefore this case is made final.

Double Patenting

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim U.S. Patent No 5,802,113.

As per claim 17, Kim discloses a demodulator (see fig.1 element 10) having a power approximation circuit (see figs. 1, 2 element 30 and col.5, lines 1-20) coupled to receive a real and an imaginary component of a complex signal (see fig.2 elements 31, 32 and col.5, lines 5-25) the power approximation circuit generating an approximate power (col.3, lines 5-15) value which indicates an actual power value for the complex signal by combining (see fig.2 element 56 and

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col.5, lines 8-45) absolute values of the real and imaginary components (see fig.2 elements 50, 60 and col.5, lines 23-45) using an average filter (see fig.2 element 73 and col.5, lines 35-65).

As per claim 18, the system of Kim does include detection of at least one signal-to-noise ratio (see fig.1 element 15 and col.2, lines 35-50).

As per claims 19 and 20, the system of Kim does include a lookup table that maps the power value (see fig.1 element 16 and col.3, lines 50-67 and col.4, lines 25-30).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yaguchi et al U.S. Patent No 5,337,332.

As per claim 17, Yaguchi et al disclose a demodulator (see figs.1, 3-5, 8 element 13 and col.3, lines 5-7 and col.6, lines 54-56) having a power approximation circuit (see figs.1, 3-5, 8 elements 15, 15' and col.3, lines 14-20 and col.6, lines 45-67) coupled to receive a real and an imaginary component of a complex signal (see figs.1, 3-5, 8 element S4 and col.3, lines 6-8 and col.6, lines 45-67) the power approximation circuit generating an approximate power (col.3, lines

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5-15 and col.6, lines 45-67) value which indicates an actual power value for the complex signal by combining (see fig.1 element 17 and col.3, lines 23-25 and col.4, lines 4-7 and col.6, lines 66-67) absolute values of the real and imaginary components using an average filter (see figs.1, 3-5, 8 element 18 and col.3, lines 26-65 and col.4, lines 8-10, 55-67 and col.8, lines 35-60).

As per claim 18, the system of Yaguchi et al does include detection of at least one signal-to-noise ratio (col.4, lines 49-60).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim U.S. Patent No 5,802,113 in view of Stewart U.S. Patent No 5,671,253.

As per claim 21 Kim disclose all the features of the claimed invention except an equalizer and a circuitry for providing a selector error indication .

Stewart discloses a demodulator having an equalizer (see abstract fig.5 element 220) and a circuitry for providing a selector error indication (see abstract and fig.5 element 40 and col.5, lines 5-67 and col.7, lines 10-60).

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It would have been obvious to one of ordinary skill in the art to implement the system of Stewart into Kim as it would increase the system capability in compensating for symbol point offset and symbol point rotation caused by phase and frequency jitter in the carrier frequency.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Han U.S. Patent No 6,243,431 B1 teaches a timing recovery apparatus.

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Giallorenzi et al U.S. Patent No 5,867,525 teach a synchronizer and method therefor and communications system incorporating same.

Nkaya U.S. Patent No 5,463,664 teaches a DPSK delay detection circuit.

Tjahjadi et al U.S. Patent No 5,001,729 teach a high speed half duplex modem with fast turnaround protocol.

Werner et al U.S. Patent No 6,069,917 teach a blind training and decision feedback equalizer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is (703) 308-9573. The examiner can normally be reached on Monday-Thursday from 8:00 AM - 5:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (703) 305-4378. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Emmanuel Bayard

Patent Examiner

October 18, 2001

E. B.


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 10/18/01